SECTION 01010 - SUMMARY OF THE WORK

GENERAL

FWP is looking for a contractor to prepare, grade to drain, and place material on the Smith River WMA and Fort Logan FAS access road. The road is approximately 2.7 miles long and there are several locations that have deep mud with rutting. The road has negative drainage locations throughout and a lack of aggregate, which results in poor road conditions for public use of the WMA/FAS. Beginning at the entrance to the Fort Logan FAS road, (Station 0+00ft) and traversing down to the FAS campground entrance, are the limits for the required grading (see drawing 1). The entire road, from Station 0+00 to Station 139+95, will need to be brought back into a 14' wide finished top, with a 2% minimum road grade (crown or super), allowing water to drain away from the surface of the new road. The side slopes/ditches shall be at a minimum of 2:1 ditch depth, (see drawing 2). Any muck locations shall receive additional grading and the placement of new aggregate lifts as listed herein. If the bids come in over budget, a smaller project may be negotiated between the owner and low bidder, that meets within our financial boundaries.

SCOPE

A. Contracts: Work shall be under one General Contract and shall include, but not be limited to, all labor, materials and supervision necessary to furnish and install the Work as indicated in all associated Contract Documents. All local, county, state, or federal permits required for this type of work shall be acquired before work begins. Work shall meet or exceed all specifications set forth in these contract documents and the latest edition of the Montana Public Works Standard Specifications. If there is a conflict between specifications, the more stringent shall apply, unless otherwise specifically authorized by the owner. Contractor shall have the project inspected by FWP, Any required changes derived from these inspections shall be the responsibility of the contractor to correct and any additional costs shall be borne by the contractor.

B. Base Bid Work:

1. Base bid includes all work indicated for the Fort Logan FAS/Smith River WMA entrance road repairs.

C. Alternate Work:

1. None

D. Contractor's Use of Premises:

1. All work must always be coordinated with the Owner.
2. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.
3. Always Keep existing driveways and entrances serving the premises clear and available to the Owner and his employees. Do not use these areas for parking or storage of materials.
4. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials to the areas designated by the Owner.
5. Contractor shall establish a staging area for storage of materials and equipment, if needed.

E. Site Facility Rules and Regulations:

1. Entrance gate to the project shall be locked during work. A key will be provided for use by the contractor, until the project is over.
2. Comply with Federal, State, Local and Owner fire and safety requirements.
3. All application, material handling, and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.

F. Road Preparation Before Aggregate Placement:

1. Grade and shape the existing roadway, from sta. 0+00 ~ sta. 139+95, to provide for positive drainage away from the roadway prism and a cross slope/crown of 2%.
2. Any existing vegetation shall be removed from the roadway.
3. Any locations where the existing road top is wider than 14', the contractor shall be responsible to pull the slopes in to achieve the 14' typical top road cross section with appropriate drainage away from the road surfacing.
4. On site sub grade materials will be used to pull in the roadway cross section. No deleterious materials shall be allowed. Approval from the Project Manager shall be needed for useable material. (Darcy Yakoweshen 841-4019).
5. Compact the existing sub grade, after appropriate grades have been established, to accomplish maximum density.
6. At locations where the existing road has been infiltrated due to mud/muck accumulations additional muck excavation/grading will be required.
7. All finished side slopes shall be at a 2:1.
8. Ditches shall be pulled, where needed, to provide for positive drainage away from the roadway prism. There shall be no water crossings over the finished roadway. The entire project will need to be graded to drain away from the road, to prevent any future soft areas and to retain the new surfacing in good condition.
9. Maintain the subgrade surface until the surfacing is placed.

G. Aggregate Materials:

1. All aggregate materials used on site shall meet the minimum requirements of the latest version of Montana Public Works Standard Specifications, unless noted otherwise herein.

1-INCH CRUSHED ROAD MIX shall be free of silt, lumps of clay, loam, friable or soluble materials, and organic matter. It shall meet the requirements of ANSI/ASTM C136, within the following limits:

TABLE OF GRADATIONS

Percentage by Weights Passing
Square Mesh Sieves

Passing	**Percentage**
1 Inch Sieve	100%
¾ Inch Sieve	
5/8-Inch Sieve	

½ Inch Sieve	
3/8-Inch Sieve	
No. 4 Sieve	40-70%
No. 10 Sieve	25-55%
No. 200 Sieve	2-10%

- At least 35% by weight of the aggregate retained on the No. 4 sieve must have at least one mechanically fractured face.
- No intermediate sizes for cover aggregate, or for other purposes, shall be removed from the material during production.
- Furnish binder that is fine, natural soil particles or crusher dust, free from grass, roots, weeds, humus, or other deleterious matter. Add and blend the binder material when required with the aggregate surfacing to provide material meeting the specifications.
- The material shall meet all the requirements of this section when it arrives on the project site.

1-1/2 INCH CRUSHED ROCK shall be free of silt, lumps of clay, loam, friable or soluble materials, and organic matter. It shall meet the requirements of ANSI/ASTM C136, within the following limits:

TABLE OF GRADATIONS

Percentage by Weights Passing
Square Mesh Sieves

Passing	**Percentage**
1.5 Inch Sieve	100%
1 Inch Sieve	0%

- Furnish aggregate materials that are free of deleterious materials.
- Scoria is not allowed for use on this project.
- Material shall have a minimum of 95% by weight, with at least one mechanically fractured face.
- The material shall meet all the requirements of this section when it arrives on the project site.

H. Placement of Aggregate Materials:

1. Only at locations identified herein, shall additional aggregate be placed.
2. However, as determined by the Project Manager (Darcy Yakoweshen 841-4019), some additional placement may be warranted during the project.
3. Any work outside of this scope of work shall be negotiated between the owner and contractor, before taking place.
4. Water and compact these locations to achieve maximum density before placing the aggregate surfacing.
5. Spread the 1-1/2” Crushed Rock over the prepared sub grade, meeting the requirements listed herein, to a compacted depth of 6 inches. For this material, the width of placement shall be 17.3’ at the base and a 15.3’ finished top. This reflects the 2:1 side slope requirement.
6. After the completion of the 1-1/2” Crushed Rock lift, spread an additional lift of 1” minus Crushed Road Mix, meeting the grading requirements listed herein, to a compacted depth of 4 inches. For this material, the width of placement shall be 15.3’ at the base and 14’ for the finished top. This reflects the 2:1 side slope requirement.

7. Compact each aggregate lift sufficiently to achieve maximum density. Adjust water content as necessary to achieve maximum compaction. Care shall be taken so that no segregation of the material occurs during spreading and placement.
8. Level and contour the surface with a cross slope of 2% to provide for positive drainage away from the surface.
9. No water ponding on the top Crushed Road Mix surfacing will be allowed.
10. If the contractor chooses to stockpile materials on site, locations will need to be approved by Project Manager (Darcy Yakoweshen 841-4019).
11. After work has been completed, remove any remaining stockpile and leave location in a clean and neat condition.

I. Locations for Additional Aggregate:

These locations have been identified and will need additional processing. This involves the removal of any deleterious material/mud from the road (Contractor to dispose of this material at a location as determined by the Project Manager, which will be on site). Next, the locale needs to be graded and compacted as specified herein. Once the grading/compaction of the sub grade has been completed, the contractor shall place 1-1/2" Crushed Rock to a compacted depth of 6" with a 15.3' top. After processing this lift, the contractor shall place another 4" deep compacted lift of 1" Crushed Road Mix, with a 14' top, over the newly placed 1-1/2" Crushed Rock. The material for the project, 1-1/2" Crushed Rock and 1" Crushed Road Mix, shall come from the Mikesell Gravel Pit (Bryan Mikesell 547-4133). The specific locations for aggregate are;

1. Approx. Sta. 10+50. 5yds3 of 1-1/2" road mix and another 3yds3 of 1" road mix.
2. Approx. Sta. 33+80. 5yds3 of 1-1/2" road mix and another 3yds3 of 1" road mix.
3. Approx. Sta. 47+52. 57yds3 of 1-1/2" road mix and another 34yds3 of 1" road mix. The length of disturbance is approx. 190' at this location.
4. Approx. Sta. 55+45. 57yds3 of 1-1/2" road mix and another 34yds3 of 1" road mix. The length of disturbance is approx. 190' at this location.
5. Approx. Sta. 61+80. 35yds3 of 1-1/2" road mix and another 21yds3 of 1" road mix. The length of disturbance is approx. 115' at this location.
6. Approx. Sta. 63+90. 223yds3 of 1-1/2" road mix and another 134yds3 of 1" road mix. The length of disturbance is approx. 740' at this location.
7. Approx. Sta. 72+35. 23yds3 of 1-1/2" road mix and another 14yds3 of 1" road mix. The length of disturbance is approx. 75' at this location.
8. Approx. Sta. 92+93. 45yds3 of 1-1/2" road mix and another 27yds3 of 1" road mix. The length of disturbance is approx. 150' at this location.
9. Approx. Sta. 97+70. 35yds3 of 1-1/2" road mix and another 21yds3 of 1" road mix. The length of disturbance is approx. 115' at this location.
10. Approx. Sta. 105+60. 35yds3 of 1-1/2" road mix and another 21yds3 of 1" road mix. The length of disturbance is approx. 115' at this location.
11. Approx. Sta. 113+52. 20yds3 of 1-1/2" road mix and another 12yds3 of 1" road mix.
12. Approx. Sta. 139+95. 35yds3 of 1-1/2" road mix and another 21yds3 of 1" road mix. The length of disturbance is approx. 115' at this location. This is also the end of the project.

GRAND TOTAL: **575 yds3 of 1-1/2" Crushed Rock** and **345 yds3 of 1" Crushed Road Mix**.

J. Misc. Specifications:

1) Ensure that all related safety requirements are met during construction.
2) Contractor is responsible for all utility locates.
3) Any permits required for this project are the responsibility of the contractor.
4) Any property damage resulting from contractor activity will be repaired or replaced at contractor expense.
5) No work will be allowed while the ground or aggregate is frozen. The contractor and Project Manager shall determine when the road is viable to start work.
6) A key will be provided to the contractor for the entrance gate.
7) Any spoil can be wasted on-site, with the Project Managers approval, and the caveat that it shall be spread/smoothed out (No clumps larger than 4” allowed) and seeded with a native grass seed blend.